State Of California The Resources Agency of California

Memorandum

Date : July 26, 2000
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Subject : **HANFORD ENERGY PARK (00-SPPE-1) Staff Issue Identification Report**

Attached is our Issue Identification Report for the Hanford Energy Park (00-SPPE-1). This report serves as a preliminary scoping document, identifying issues that we will address in detail in our Initial Study for the project. We will present the issues report at the Committee's scheduled Informational Hearing on August 2, 2000.

Attachments

RKB:rkb

cc: 00-SPPE-1 Proof of Service List
Hanford Energy Park Agency List

Issue Identification Report

Hanford Energy Park
(00-SPPE-1)

July 26, 2000

CALIFORNIA ENERGY COMMISSION

Energy Facilities Siting and Environmental Protection Division

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ISSUE IDENTIFICATION REPORT

Hanford Energy Park (00-SPPE-1)

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of our site visits, discussions with federal, state and local agencies, and our review of the Small Power Plant Exemption application, Docket Number 00-SPPE-1. The Issue Identification Report contains a project description, a summary of potentially significant environmental impacts, a discussion of transmission system engineering issues related to the project scope, and a discussion of project scheduling issues.

PROJECT DESCRIPTION

On May 19, 2000, the GWF Power Systems Company (GWF) filed an application for a Small Power Plant Exemption for the Hanford Energy Park (HEP). The proposed HEP Project will be a 98.7- megawatt (MW) project. It will include a natural gas-fired, combined cycle, combustion turbine generator (CTG) and a heat recovery steam generator (HRSG), which will supply one steam turbine generator (STG). The HEP plant facilities will occupy approximately 10 acres and will be located adjacent to an existing GWF cogeneration power plant. The existing plant and adjacent site are located in the Kings Industrial Park, on the southern border of Hanford, California. The HEP location is on the southwest quarter of Section 13, Township 19 South, Range 21 East in Kings County situated on Idaho Avenue between 10th and 11th Avenues.

The proposed power plant will be a cogeneration power plant using natural gas, and will produce two forms of energy, electricity and thermal energy (steam). It is the intent of the project owners to transmit power through a new 1.2-mile 115-kV transmission line. The new transmission line will travel along the Burlington Northern & Santa Fe railroad right-of-way connecting to a new switchyard located on a one-acre parcel adjacent to the existing Henrietta-Kingsburg 115-kV line.

The natural gas fuel for the HEP project would be supplied by a16-inch-diameter pipeline along a 2.8-mile route. The gas pipeline will tie into the Southern California Gas Company's 400 transmission pipeline along Hanford-Armona Road.

The principal water supply source for the proposed HEP project will be groundwater. GWF has a ground water supply well adjacent to the HEP site producing water for the existing GWF power plant. The well has sufficient capacity to meet the needs of both the existing plant and the proposed HEP project. Potable water and plant general service water will be obtained from the existing city domestic water supply connection. The estimated total annual water use by the HEP project is 850 acre-feet. Approximately 82 percent of this water requirement will be for makeup water for the cooling tower. Water discharges will be collected in drains, routed for treatment to remove oil and grease, then routed to the HEP cooling tower basin. All discharge systems will be constructed and operated in compliance with applicable codes and regulations.

The HEP project will be equipped with Best Available Control Technology (BACT) in order to control air pollutant emissions. These controls include dry low NO_x combustors and Selective Catalytic Reduction (SCR) installed in the HRSG. The SCR system consists of the reduction catalyst and an aqueous ammonia injection system.

HEP would be operated as a merchant power facility, selling its energy via direct sales agreements and in the spot market via the California Power Exchange. Energy output and operational levels would vary according to demand in the deregulated California energy market. Electricity prices and operational levels would not be subject to California Public Utilities Commission (CPUC) regulation. In addition HEP will be a source of cost effective cogenerated steam to meet the anticipated future steam needs of the Kings Industrial Park.

POTENTIAL ISSUES

Public Resource Code section 25541 states "[t]he commission may exempt … chapter thermal powerplants with a generation capacity of up to 100 megawatts and modification to existing generating facilities that do not add capacity in excess of 100 megawatts, if the commission finds that no substantial adverse impact on the environment or energy resources will result from the construction and operation of the proposed facility or from the modification." The SPPE process is different from the Application for Certification process since the Energy Commission will not certify the project but exempt the project from the certification process. If an exemption is granted, the applicant will need to secure the appropriate licenses and permits for the project from various local, state and federal agencies. The Energy Commission is the lead agency under the California Environmental Quality Act (CEQA).

The SPPE process is also uses a different scope format of analysis. For an SPPE, staff prepares an Initial Study that evaluates whether the project will result in any significant environmental impacts, identifies mitigation measures that will reduce those impacts to less than significant, and will establish proposed conditions of exemption. Staff will use the Environmental Checklist Form contained in CEQA guidelines Appendix G (California Code of Regulations, Title 14, section 15063 (f))[1] as a guideline for the issues that will be examined in the Initial Study.[2]

This portion of the Issues Identification Report contains staff's preliminary findings regarding the questions posed in the Environmental Checklist Form. The following discussions will only focus on those checklist questions where staff has concluded that "potentially significant impact" may occur, the impact is "less than significant with mitigation applied", or where staff has insufficient information at this time to reach a conclusion. The Committee should be aware that this report may not include all the significant issues that may arise during the case, as discovery is not

[1] **http://ceres.ca.gov/topic/env_law/ceqa/rev/appg_102698.pdf**

[2] Staff proposes two add to questions to the environmental check list form. These questions are related to environmental justice and impacts on energy resources.

yet complete, and other parties have not had an opportunity to identify their concerns.

ENVIRONMENTAL CHECKLIST

The following sections contain staff's preliminary findings regarding the checklist questions. The Initial Study will provide additional analysis supporting staff's conclusions, description of the recommended mitigation measures and conditions of exemption. Staff has not included those Environmental Checklist Form questions for which staff has preliminarily concluded that the impact is "Less Than Significant", or where there is "No Impact". These will be include in staff's Initial Study.

AESTHETICS Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

The proposed power plant may have the potential to cause significant visual impacts due to project-created vapor plumes. Due to the level, open agricultural landscape, such plumes could potentially be seen over a wide area; due to the plant's relative proximity to the City of Hanford, large numbers of sensitive viewers might be exposed to views of such plumes; project-related visible plumes might potentially contribute to cumulative changes in landscape character and quality in combination with other existing plume-producing sources in the vicinity. A determination of whether significant impacts exist would depend upon data describing the magnitude, frequency, and duration of visible plumes that could be expected. Staff has issued data requests to obtain this additional information. If significant visual impacts due to vapor plumes will occur, staff believes they can be mitigated with existing technology.

Substantial new plant lighting, if not fully mitigated, has the potential to have adverse effects on the nighttime visual environment of the vicinity, due to direct illumination or glare on off-site viewers; or to nighttime light pollution (i.e., 'backscatter' or reflected light visible in the night sky under certain conditions). A determination of whether significant impacts exist would depend on a description of anticipated project night lighting, including descriptions of any specific measures (shielded lighting; directed lighting; reduced lighting; lighting activated on as-needed basis; etc.) proposed to mitigate such effects. Staff issued data requests to obtain this additional information. If significant visual impacts due to new night lighting will occur, they can be substantially mitigated with shielded, directed lighting and other available measures as discussed.

AIR QUALITY [3]: Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
d) Expose sensitive receptors to substantial pollutant concentrations?		X		

There are types of emissions associated with this project. The first are construction emissions. Although construction emissions are of a temporary nature and are not typically regulated, staff believes these emissions might significant. Staff issued data requests for additional emission data that address the number of construction equipment per month and the number of hours per day they will be used. Review of the requested data will allow staff to determine whether the impact is significant or not and whether any violation of air quality standards occurs from these temporarily high emission levels. If staff believes that the potential construction impacts are significant, staff may consider appropriate mitigation measures beyond what the Applicant has proposed to mitigate the impacts to less than significant.

The second type of emission is from operation of the proposed project. The applicant has provided estimations of operational emissions based on analysis of worst-case scenarios, using air quality modeling. The modeling results indicate no violation of air quality standards. These results also indicate that no sensitive receptors would be exposed to substantial pollutant concentrations. The emissions are calculated based on assumption of implementing BACT on the turbines, which are the major sources of operational emissions.

Based on the applicant's estimates, emissions offset were required, and they have provide a list of potential ERC sources to fully mitigate the emissions from plant operation. The applicant has supplied a list of Emission Reduction Credits (ERCs) sources that they are considering, and has identified the amount of credit to be provided by each source. Our data requests ask the applicant to update the potential ERC sources according to the most recent San Joaquin Valley Unified Air Quality Management District (SJVUAPCD) inventories. As an example one of the applicant's sources (GWF, source No. 1279-4, located in Earlimart), considered to supply 5028 lbs PM_{10} credit on the 4^{th} quarter of each year, is not available in the recent list of sources. These sources need to be updated to ensure availability of the offset credits needed to fully mitigate the project's impact.

[3] Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to answer the questions in the checklist.

AIR QUALITY (continued): Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		

Applicant has not provided information regarding cumulative air quality impact analysis. According to the SPPE, applicant will request from the SJVUAPCD a listing of facilities that are permitted within a 6-mile radius of the HEP but not in operation. Applicant will submit the results of this analysis in a separate report. After the review of the results of such analysis, staff will evaluate the significance of cumulative impacts. The applicant anticipates the impacts to be well below significant levels. In addition, staff has concerns about the combined effects of the new HEP and the existing GWF facility. Staff will evaluate whether these two source should be modeled together to evaluate whether they could result in a significant impact.

BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		

Three issues for biological resources identified to date are: 1) need for a Section 10a take permit from the U.S. Fish and Wildlife Service (USFWS) and possibly a 2081 permit from the California Department of Fish and Game (CDFG); 2) there are no measures proposed to conduct pre-construction surveys or to provide habitat compensation; and 3) indirect effects from providing process heat or electric power to new industries are not addressed.

SECTION 10A PERMIT

The SPPE states (page 8.2-11) that a Section 10a take permit from USFWS and a 2081 permit from CDFG would be required if San Joaquin kit foxes (federally

endangered and state threatened) moved into the area prior to construction. This would also be true if the endangered Fresno or Tipton kangaroo rat (federally and state endangered) occupied the site prior to construction. However, each species may inhabit fallow agricultural sites (present on the site) and the site is within the range of each species. Therefore, a permit from USFWS is required. If a Section 10a consultation is not initiated until pre-construction surveys, the applicant would experience delays of several months to a year in the construction schedule. Staff recommends the applicant contact the U.S. Environmental Protection Agency to initiate a Section 7 consultation.

MITIGATION MEASURES

The SPPE does not specify any mitigation measures. Preconstruction surveys will be required. Additionally, the fallow land at the power plant site and ruderal habitat along the proposed transmission line route represent potential San Joaquin kit fox (federally endangered and state threatened) and Fresno or Tipton kangaroo rat (federally and state endangered) habitat. The habitat lost from construction of these facilities should be compensated.

INDIRECT EFFECTS

The SPPE states (8.2-12) that Hanford Energy Park is expected to attract industries requiring process heat or electric power in the Kings Industrial Park or adjacent industrial areas. If these areas represent potential habitat for sensitive resources, the growth inducing impacts should be mitigated. On July 19, 2000, staff issued data requests asking the applicant to provide the information necessary to make this determination.

CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X			

The Confidential Appendix to the AFC identified several features that may or may not be determined to be significant. It is likely that at least one feature, a telegraph line dating from approximately 1926 will be destroyed by construction of the proposed transmission line. It is likely the other resources will be affected in some manner. Staff has requested additional information and a values assessment of the identified cultural resources by the consultant to the applicant. The additional information should enable staff to make a determination of significance of any impacts to the resources and determine whether mitigation is possible.

VIII. HYDROLOGY AND WATER QUALITY Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?		X		

The Tulare Lake Groundwater Basin from which the project will withdraw groundwater is currently in a state of overdraft to the extent of 229,000 acre-feet/year (AFC Section 8.14.2). HEP intends to mitigate the groundwater use of the project through a purchase of State Water Project (SWP) water from the Angiola Water District, and a series of agreements with Kings County Water District, J.G. Boswell Company, the Tulare Lake Basin Water Storage District, and the Peoples Ditch. The same amount of water consumed by the project, approximately 850 acre-feet/year, will eventually be recharged to the same aquifer from which groundwater is extracted by HEP for cooling purposes.

However, regardless of the amount of water contracted for through any particular SWP contractor, the actual amount delivered is subject to availability. In order to reach a final conclusion on the adequacy of the proposed mitigation, a determination is needed of how the project water supply will be impacted by deliveries less than the amount contracted for, i.e., during a period of drought, or should reductions be made for legal or regulatory reasons to the entitlement of the SWP contractor supplying the project. On July 19, 2000, staff issued data requesting asking the applicant to supply this additional information.

LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		X		

At this time, staff is unable to reach final conclusions regarding the project's conformity with land use plans, policies or regulations. Staff submitted data requests on July 20, 2000 to obtain additional information regarding building height setback requirements, and a prior settlement agreement between GWF and the City of Hanford. Once staff receives responses to these data requests we expect to be able to address this question.

MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in inefficient or wasteful use of energy resources*?*	X			

Based on staff's initial review of the proposal, it is not clear that the net generating capacity of the project is under 100 MW, which is required in order for the project to qualify for an SPPE. Net generating capacity is not obvious from the application; On June 28, 2000, staff has submitted data requests asking for information on auxiliary (parasitic) loads and cogeneration export steam in order to accurately calculate capacity. If responses to these data requests are received by July 27, 2000, staff will be able to advise the Committee on whether it believes the generation capacity is over 100 MW, and thus, whether the project qualifies for an SPPE.

Staff does not have sufficient information to reach final conclusions regarding whether the project represents a wasteful or inefficient use of energy. The net project electrical efficiency described in the application (36.68 percent LHV) appears quite low for a project utilizing this technology. Staff has submitted a data request asking for a more definitive calculation of generating efficiency. If responses to these data requests are received by July 27, 2000, staff will be able to advise the Committee on whether it believes the efficiency of the proposed project is an issue for this project.

NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X		

In the application, it is not clear whether an increase in ambient noise measured at the project site was due entirely to wind effects, or in part to a change in the noise level from the existing GWF facility. Staff has submitted a data request to clarify future changes planned for the GWF facility will further reduce this plant's noise emissions, and how this will affect the ambient noise levels at the Hanford project. If the response to this data request is satisfactory, this will cease to be an issue.

Staff's criteria for adverse noise impacts include a 5 dB increase above ambient background noise levels at the nearest sensitive receptor. In the application, predicted noise levels at sensitive receptors are calculated using average values, not background values, as is staff's normal practice. Staff has submitted a data request to clarify this point. If the response to this data request is satisfactory, this will cease to be an issue.

TRANSPORTATION/TRAFFIC Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		X		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?		X		

We are unable to identify exactly which roadways will be impacted or if any significant impacts at all will result with the addition of construction traffic related to the Hanford Energy Park based on the information presented in the SPPE. However, the roadways that have the most potential to result in traffic impacts would be State Route 99 (at its junctions with SR 198 and SR 43), and State Route 198 (at 10th Avenue and 11th Avenue). These highway sections all currently operate at Level of Service (LOS) D. LOS E is considered unacceptable. The local roadways affected by the Hanford project traffic (i.e., 10th Avenue, 11th Avenue, Idaho Avenue) have less potential to result in traffic impacts since these all currently operate at LOS A. Based on a review of the traffic and transportation presented in the SPPE, staff is unable to reach a final conclusion regarding whether the project will result in any potentially significant impacts. If significant impacts are expected to occur, staff believes that mitigation measures could be developed to reduce or eliminate these impacts. Staff has issued data requests to obtain the additional necessary information.

TRANSMISSION SYSTEM ENGINEERING

The Transmission System Engineering (TSE) discipline will not evaluate whether the project will result in significant environmental impact. However, staff will evaluate TSE issues to determine whether any downstream facilities will be required because of the project. We will do this by conducting a transmission system analysis that evaluates conformance with reliability criteria, identifies criteria violations, and identifies the selected mitigation measures, and thus, whether downstream facilities may be required to address reliability impacts of the project. The California Independent System Operator (Cal-ISO) will also file testimony addressing system reliability and whether any downstream facilities will be required.

SCHEDULING ISSUES

We have begun our analysis of the potential issues identified above, as well as the other questions raised in the Environmental Checklist Form. As noted above, the first step in that assessment was the issuing of data requests to the applicant on June 28 and July 19, 2000. Over the next few months, we will conduct publicly noticed workshops to address identified concerns.

Our initial findings regarding the major issues discussed above, as well as other environmental findings will be presented in the Draft Initial Study that we expect to file on September 29, 2000. After filing the Draft Initial Study, we will conduct public workshops to discuss our findings, recommendations and proposed conditions of exemption. Based on these workshop discussions and other information that may be provided, we will present our conclusions and recommendations in the Final Initial Study filed by October 27, 2000.

Proposed Schedule For the Hanford SPPE

DATE	EVENT
31-May-00	Receive document (SPPE)
28-Jun-00	First Set of Data requests to applicant
19-Jul-00	Second Set of data requests to the Applicant
27-Jul-00	Responses due to first set of data requests
2-Aug-00	Site Visit/Information Hearing
3-Aug-00	**Data Request and Data Response Workshop**
18-Aug-00	Responses due to second set of data requests
4-Sep-00	**Second Data Response Workshop**
29-Sep-00	Staff Publishes Draft Initial Study
10-Oct-00	**Workshop to receive comments on Draft Initial Study**
27-Oct-00	Staff files Final Initial Study
13-Nov-00	**Hearings**
30-Nov-00	Proposed decision
15-Dec-00	Staff/parties file comments on proposed decision
20-Dec-00	Final hearing on Decision